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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/708,015 | 02/03/2004 | PEI-MING SHAN | 12190-US-PA | 2014 |
| 31561 | 7590 | 09/15/2006 | EXAMINER | |
| JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE 7 FLOOR-1, NO. 100 ROOSEVELT ROAD, SECTION 2 TAIPEI, 100 TAIWAN | | | DESIR, JEAN WICEL | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2622 | |

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/708,015 | Applicant(s) SHAN ET AL. | |
| | Examiner Jean W. Désir | Art Unit 2622 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6 and 7 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langan et al (US 6,766,064) in view of Ferguson (US 6,907,143).

Claim 1:

Langan discloses:

“a spatial domain infinite impulse response filter, for receiving an input signal for generating a spatial domain infinite impulse response filtering value”, see Fig. 10 item 100, col. 13 lines 14-27;

“a peak value detector, coupled to the spatial domain infinite impulse response filter, for generating a peak value during a predetermined recording interval corresponding to the spatial domain infinite impulse response filtering value”, see Fig. 10 item 108, col. 13 lines 26-27 ;

“and a contrast evaluator, coupled to the peak value detector, for evaluating the contrast value according to the peak value and a predetermined threshold’, see Fig. 10 items 102-106;

the difference between the claimed invention and Langan's disclosure is that Langan does not explicitly say that item 100 of Fig. 10 is an "infinite impulse response filter" as claimed. However, Langan does teach that item 100 can act as a low pass filter (see col. 13 lines 23-25, col. 7 lines 4-5); and low pass filter that is based on infinite impulse response (IIR) filter is a notoriously well known device in the art, as evidence see Ferguson at col. 2 line 39, used to achieve a given filter response characteristic with less memory and/or calculation; because of these teachings an artisan would be motivated to modify Langan's disclosure and implement IIR filter to arrive at the claimed invention; this implementation would advantageously maximize image contrast and use less memory and/or calculation. Therefore, the claimed invention would have been obvious to a person of ordinary skill in the art at the time the invention was made.

Claim 2:

a first multiplier (see *Ferguson at Fig. 2 item 34*), for multiplying the input signal with a first factor value for generating a first output value;

an adder (see *Ferguson at Fig. 2 item 36*), coupled to the first multiplier for generating a sum of the first output value and a second output value to be the spatial domain infinite impulse response filtering value;

and a second multiplier (see *Ferguson at Fig. 2 items 38, 40*), adapted to multiply the spatial domain infinite impulse response filtering value with a second factor value for generating the second output value, wherein a sum of the first factor value and the second factor value is 1 (see *Ferguson at Fig. 2 where $b_0 + a_1$ is 1 as claimed*).

Claim 3 is disclosed, see Langan at col. 8 lines 4-11, col. 6 lines 45-61.

Art Unit: 2622

Claim 6 is rejected for the same reasons as claim 1.

Claim 7 is rejected for the same reasons as claim 3.

Allowable Subject Matter

3. Claims 4, 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

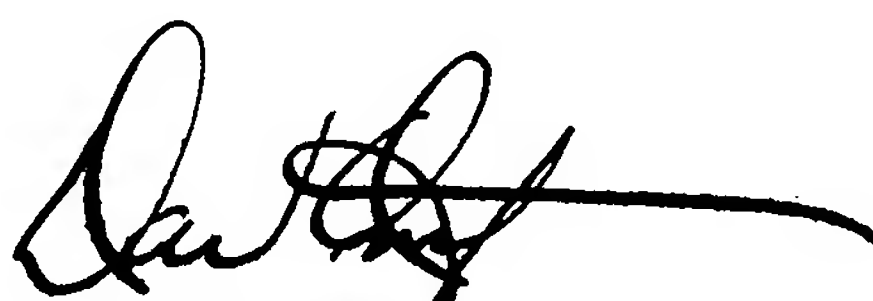
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean W. Désir whose telephone number is (571) 272 7344. The examiner can normally be reached on 5/4/9 - First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz can be reached on (571) 272 7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD
Sep. 12, 06


DAVID OMETZ
SUPERVISORY PATENT EXAMINER